

**Village Power 2000**  
**Richard Truly Remarks**  
**December 5, 2000**

On behalf of the U.S. Department of Energy's National Renewable Energy Laboratory, I would like to welcome you to Village Power 2000. I understand many of you will be traveling on to Golden later this week to visit science and engineering labs at NREL. We look forward to your visit!

Today is a special day for me relative to my former life as an astronaut—today NASA will deploy the largest solar power module ever flown in space on the International Space Station—we have a lot to learn from this mission about electricity, hydrogen, oxygen, etc. This mission will provide for a range of scientific experiments.

This is the sixth Village Power conference sponsored by NREL and our friends in the development community, including Winrock International and the World Bank, who graciously offered again this year these outstanding facilities.

We have held these meetings periodically since 1993 with one important purpose--to provide a forum for people working to introduce renewable energy technologies as an economically viable approach to electrification of rural populations throughout the world. It is especially appropriate that the World Bank has been the venue for this conference in recent years. The challenge is vast, and the

transition to sustainability will only be met through the collaborative efforts of multinational institutions like the World Bank, working in concert with the private sector and governments of the world.

I was here at this podium in 1998, and a lot of things have changed in the renewable energy business—many of them very positive--better performance, better public acceptance, better understanding of renewable energy's true value and promise.

And, as with Village Power '98, I see we have a full house. This overwhelming response shows that the viability of renewable energy to solve some of the world's serious problems is increasingly recognized as inevitable. Since our last meeting, the global population has exceeded 6 billion people. Unfortunately, more people today live without access to basic electricity services than even two years ago. We must do better.

In the research laboratories at NREL and those of our global colleagues, and in commercial applications throughout the world, performance of renewable energy technologies continues to improve. The global renewable energy industry is manufacturing more products, better products, and lower cost products than ever before. In the United States, Europe, and Japan, policies and programs are promoting the introduction of renewable energy technologies, reflecting the desires of the local citizens, and driven by their increasing concern about global warming. But what about the developing world?

The correlation between electricity production and gross domestic product is undeniable. Reducing poverty by improving the economies of rural communities in Africa, Asia, and Latin America means increasing the production and use of electricity in these areas. It means modern education. It means improved health. It means clean water. It means vastly improved communications. It means local businesses. All of this requires electricity. More and more today, it is often cheaper, on a first-cost basis, to provide electricity through locally available renewable energy resources than through poles and wires bringing electricity from large, environmentally questionable fossil or hydropower facilities. The challenge today is “how do we do it”?

The focus of this Village Power 2000 conference, is on the “how do we do it?” We’ve already this morning listened to some very wise, thoughtful suggestions.

As we look back over the renewable-based rural development work of the past decade, we know that answering the question of “how do we do it?” is far more challenging than improving technology performance, or even reducing cost of manufacturing. Cost and performance are tied to technology. When faced with a technological issue, our scientists and engineers are always up to the challenge.

The “how do we do it?” is harder to grasp. It involves people, and organizations, and the rule of law, and business investment. It involves the development of what we have begun to call “delivery pathways.” Answering the “how do we do it?” means building the capacity of people and institutions to install and maintain products in the most rural, remote parts of the globe. Answering the “how do we do it?” means providing financing at the national, local, and even individual level – often in places that lack even the basics of a banking and lending capacity.

And if that isn’t hard enough – here’s the real challenge! Doing it at a scale that can actually make a difference in our children’s lifetimes. Over 2 billion people, hundreds of millions of households, lack the basic human needs that can be provided by surprisingly small amounts of electricity. \$500 systems. A \$100 billion challenge.

On behalf of NREL and DOE, I leave you with this charge for Village Power 2000 – how do we do it? We have assembled here, for the next two days, the world’s experts to undertake this challenge. Let’s all get to work. Thank you.